

MISSOURI FERAL HOG REPORT, 2021

Abstract: This report summarizes the feral hog or swine (*Sus scrofa*) elimination efforts of the Missouri Feral Hog Elimination Partnership (Partnership) in 2021. The Partnership is comprised of over 15 federal and state agencies, as well as ag and conservation NGOs, collaborating under the common goal of eliminating feral hogs from public and private lands throughout Missouri. During 2021, the Partnership removed 9,857 hogs from the landscape, assisted 1,308 landowners, and scouted 3,286,133 acres. In addition to on-the-ground operations, the Partnership hired four Feral Hog Outreach Educators through the University of Missouri's Extension Program with the goal of additional landowner recruitment, particularly in areas of high feral hog population density. Looking forward into 2022, the Partnership aims to expand drone use and aerial operations, increase outreach, and provide equipment for landowner use for post-elimination restoration.

The Missouri Feral Hog Elimination Partnership (hereafter Partnership) is made up of over 15 federal and state agencies and numerous ag and conservation NGOs. Trappers across multiple partner organizations are working toward elimination efforts. At full staff, a total of 48 full time trappers will be allocated across the state. Areas with feral hog populations are divided into six Elimination Areas. Both public and private lands were scouted and trapped throughout 2021.

Since late 2019, feral hog hunting has been closed on all public lands in the state, which led to a subsequent increase in the numbers of trapping events by the Partnership and an increase in the

number of hogs eliminated on federal and state lands.

DISTRIBUTION AND ABUNDANCE

Feral hog range spans across at least 35 states, including Missouri. Feral hogs are primarily found in the southern portion of Missouri, within at least 27 counties. Efforts made by the Partnership since 2016 have resulted in a 48.5% decrease in the number of feral swine-occupied water sheds in the state of Missouri (Figure 1).

Estimates of feral swine abundance statewide, measured as the catch per unit effort, have decreased from 2016 to the present, with a year by year decrease from 2019 to 2021 (Figure 2).

Anecdotal field reports from trappers indicate feral hogs are becoming rarer in the landscape and sounder sizes are decreasing over time, suggesting elimination efforts are positively affecting population reductions in the state.

The purpose of this report is timely dissemination of information. Results may be preliminary and subject to change with additional data.

PROBABLE FERAL SWINE DISTRIBUTION 2021

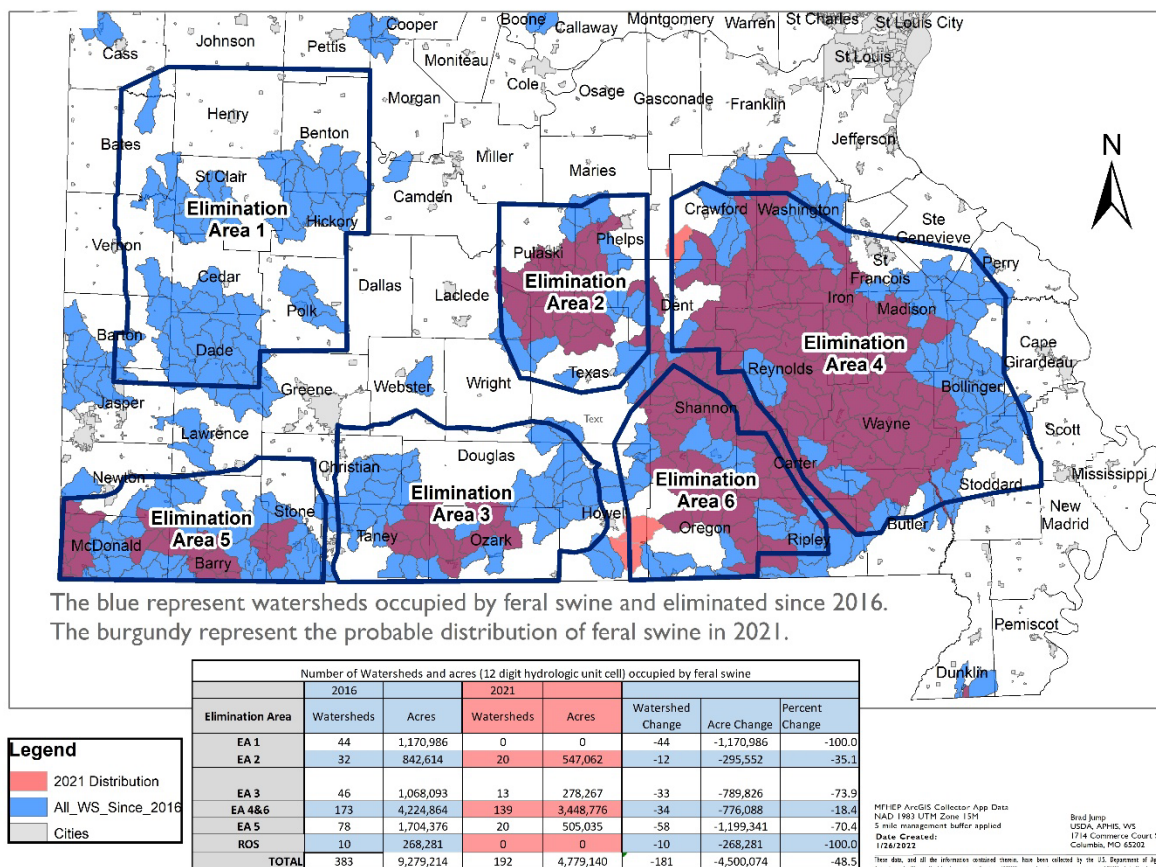
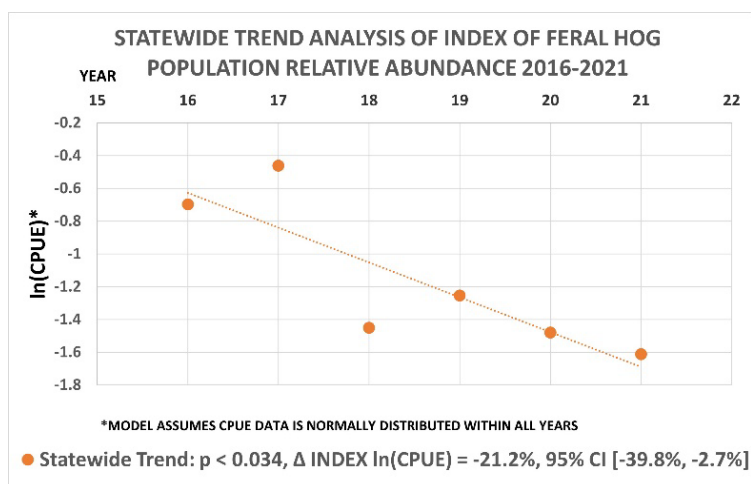


Figure 1: Probable feral hog distribution from 2016 compared to 2021. The blue represents watersheds occupied by feral hogs and eliminated since 2016. The burgundy represents the probable distribution of feral hogs in 2021.



ELIMINATION EFFORTS

At full staff, a total of 48 full-time trappers are deployed by the Partnership across the state to implement elimination efforts. Of the 48 trappers, 10 are new positions added in 2021.

In 2021, approximately 3,286,133 acres were scouted for feral hog activity by Partnership trappers across the state (Figure 3A). In total, 9,857 hogs were removed in 2021 (Figure 3B). Most of the

hog removal took place in January (1,926 hogs), followed by February (1,636 hogs) and March (954 hogs). The highest number of feral hogs were removed from Iron County at roughly 1,940 hogs, followed by Wayne County at 1,329 hogs, and Reynolds County at 1,268 hogs. Overall numbers of removed adults and juveniles were roughly equivalent (Figure 4A; 4,071 juveniles, 3,855 adults), while slightly more females than males were removed (Figure 4B; 3,656 males, 4,270 females)

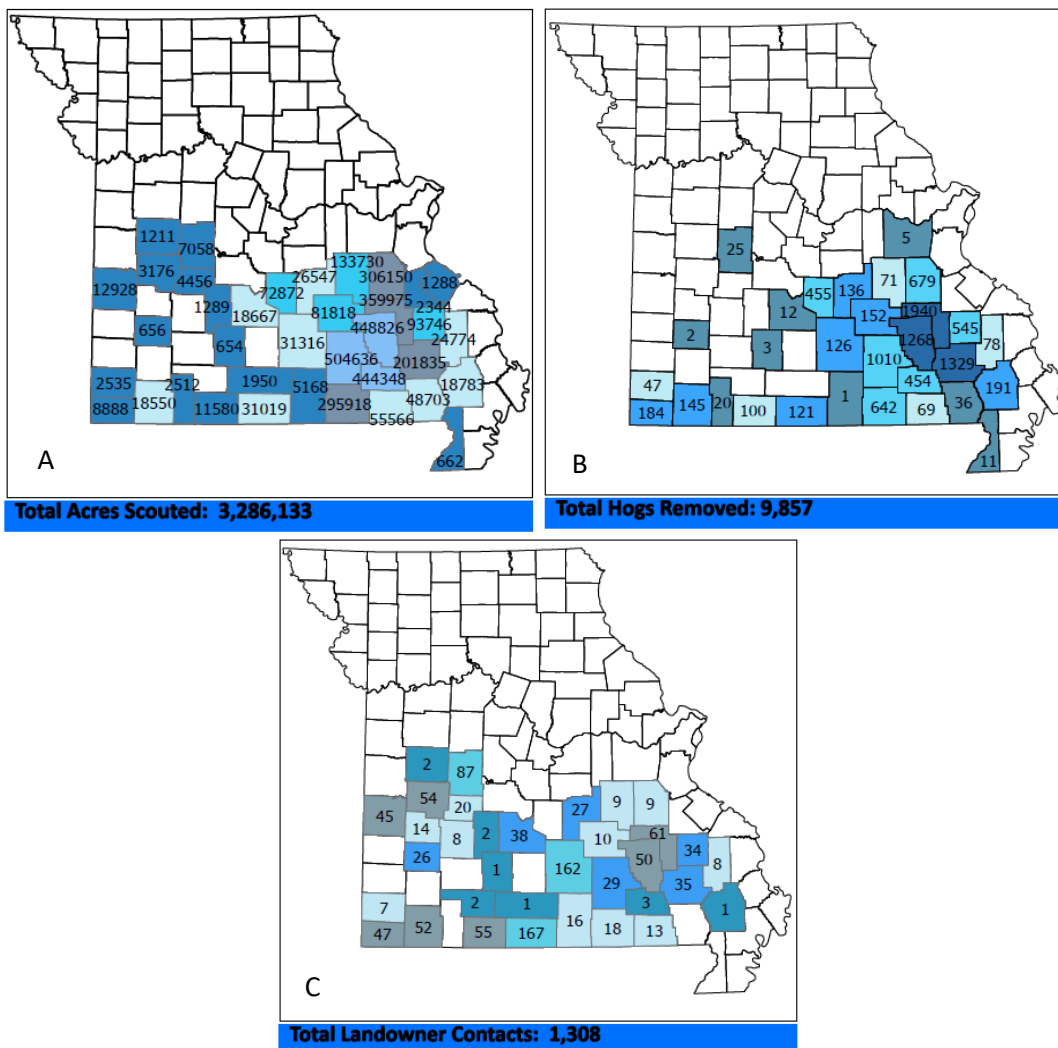


Figure 3: A) Total areas scouted in 2021 by county; B) Total hogs removed in 2021 by county; C) Total landowners assisted in 2021 by county.

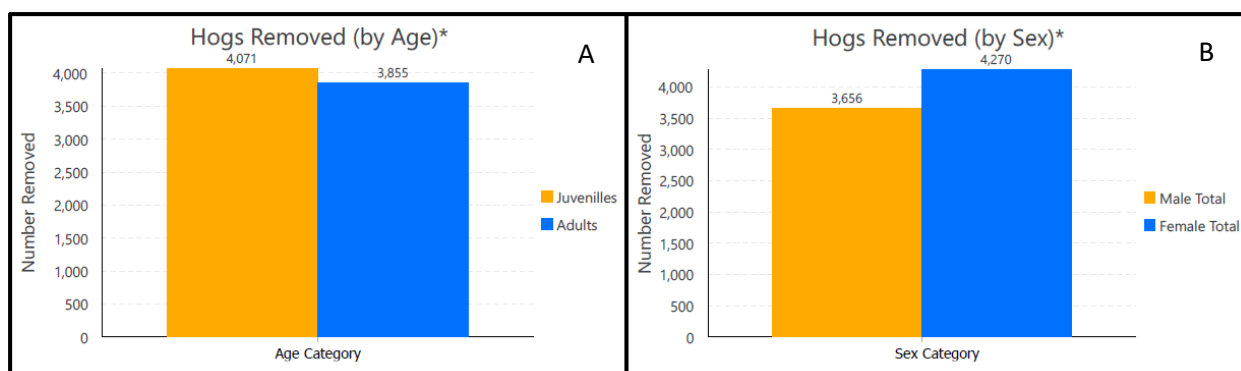


Figure 4: Hog removal by A) age and B) sex.

Mark Twain National Forest

The Mark Twain National Forest (MTNF) was closed to public hunting of feral hogs at the end of 2019. With the hunting closure, the annual number of capture events (Figure 5), annual number of hogs taken (Figure 6), and the number removed per capture event (Figure 7) all increased. In 2021, there were 228 capture events, resulting in 1,784 hogs removed from MTNF. During that same

timeframe, the average number of swine removed per capture event in 2021 was 7.8 hogs. Significantly increased effort by the partnership on MTNF following the closure has resulted in a reduction in hogs removed, number of capture events, and average number captured per event when compared to 2020. Given the removal efforts on MTNF continued to increase in 2021, these reductions are indicators of success and suggest a reduction in abundance.

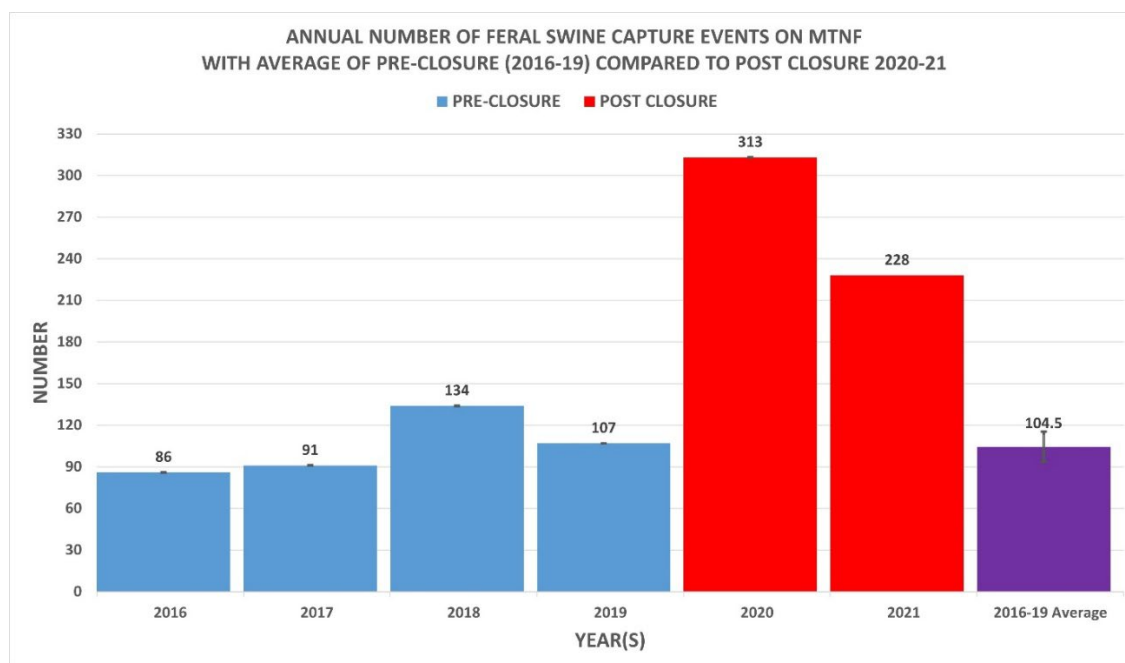


Figure 5: Annual number of feral swine capture events on Mark Twain National Forest from 2016-2021.

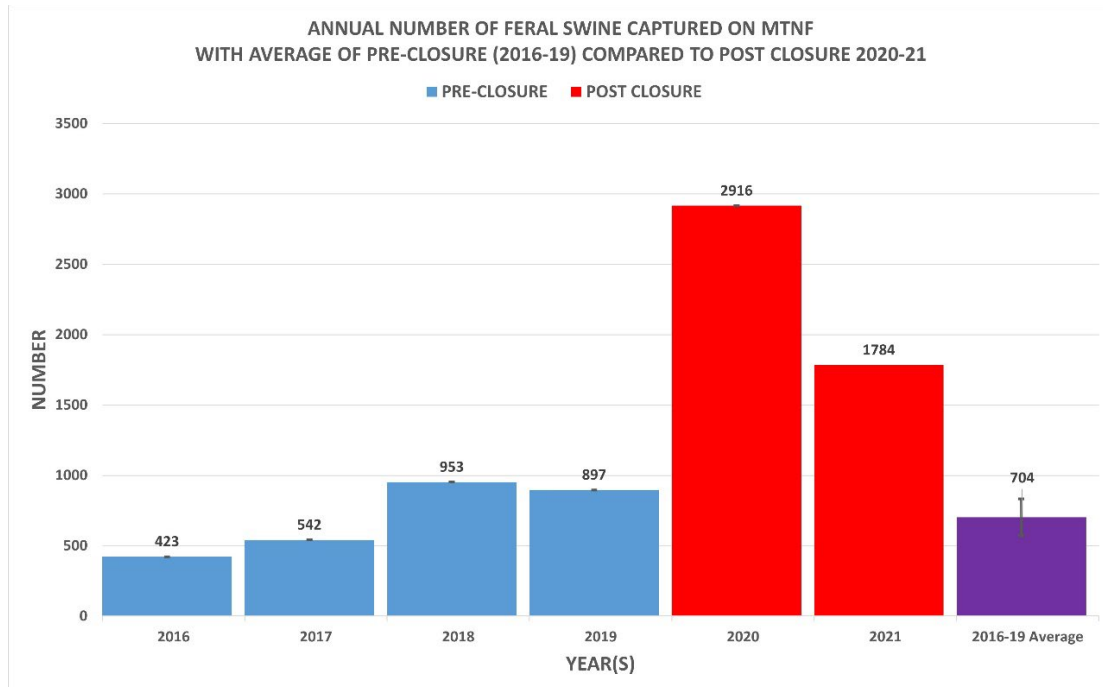


Figure 6: Annual number of feral swine captured on Mark Twain National Forest from 2016-2021.

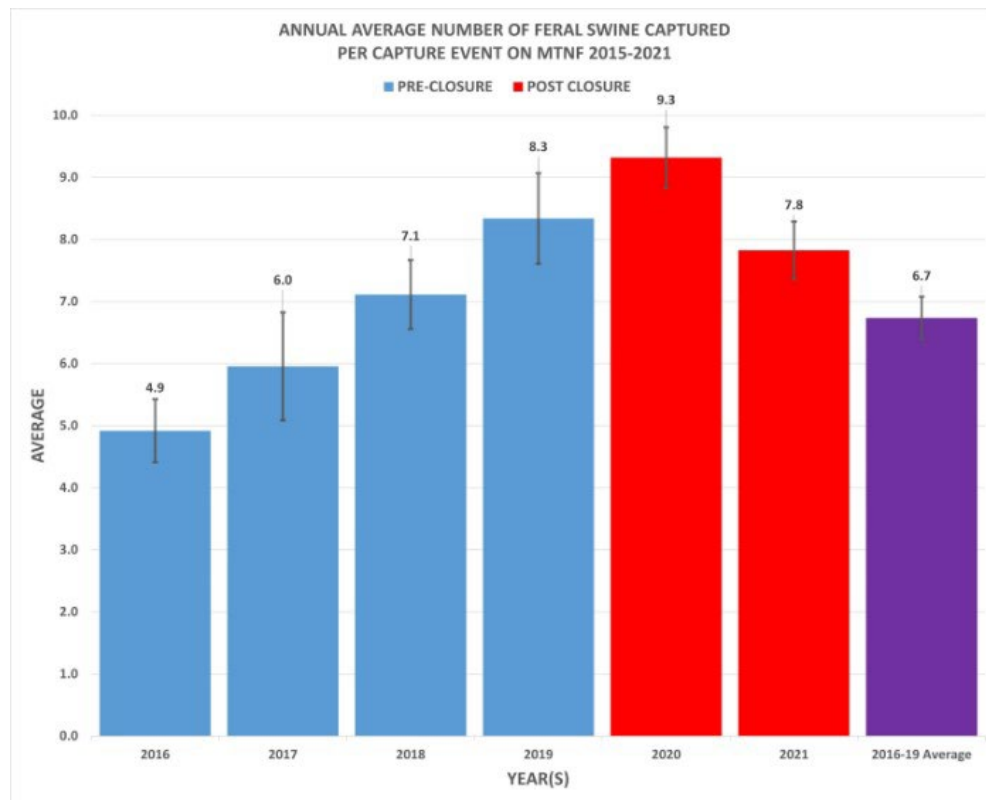


Figure 7: Annual average number of feral swine captured per capture event on Mark Twain National Forest from 2015-2021.

Aerial Operations

Feral swine population removal efforts using aerial operations on both public and private lands continued into 2021. Over the course of the year, more than 750 public and private cooperators continued to provide permission for aerial operations in support of feral swine removal. A total of 193.5 hours of aerial operations were conducted over the course of the year resulting in the removal of 1954 feral swine.

RECRUITMENT EFFORT

For impacts of feral swine to be minimized in the state, ongoing elimination efforts are necessary, requiring additional cooperation of landowners. In 2021, four Feral Hog Outreach Specialists were hired as part of the University of Missouri's Feral Hog Extension Program to act as liaisons for the Partnership. Each Outreach Specialist was tasked to impacted counties with headquarters in Ironton, Ava, Salem, and Houston. Specific goals of the Feral Hog Extension Program, complimentary to efforts of the Partnership, include 1) establishing relationships with landowners in strategic locations, 2) establishing a quarterly newsletter to improve communications, 3) engaging local organizations such as county Farm Bureau, local Cattleman's Association, County Commissions, etc., 4) conducting surveys and collecting data associated with feral hog damage, 5) connecting landowners with trappers, and 6) conducting landowner meetings and workshops. Efforts in 2021 have been successful, with an additional 39 landowners recruited to participate in

aerial operations through Outreach Specialist efforts alone.

HB 369

A major step in addressing the feral hog problem in Missouri in 2021 was the passage of House Bill No. 369. This bill redefines feral swine and increases penalties for possessing, transporting and releasing feral swine. To protect landowners, the bill specifically addresses preventing criminalization of accidental escapes, transportation of domestic hogs, and/or farming or raising domestic hogs. This piece of legislation clarifies laws regarding feral hogs and allows for enforcement by various enforcement agencies, ultimately aiding the Partnership's efforts.

PLANS FOR 2022

Continued recruitment of landowners and communication of accurate information to the public regarding feral hogs in Missouri are top priorities for the Partnership continuing into 2022. Continued expansion of removal efforts on private property and procurement of additional funding to provide a full winter of aerial operations in 2022 are additional priorities. The Partnership also aims to expand the use of drones to find hogs and guide trappers to sounders, particularly in dense cover or in hard-to-access locations. The partnership also will make use of a dedicated helicopter for the entire winter.

In an effort to aid landowners impacted by feral hog damage, equipment is being purchased utilizing Federal Farm Bill Grant (Feral Swine Control Projects-FSCP) funding and will be placed in

counties for landowners to use to repair damage.

ACKNOWLEDGEMENTS

The Partnership is extremely grateful for the cooperation and efforts provided by private landowners of Missouri and the multitude of dedicated trappers who have worked tirelessly across the landscape to eliminate feral hogs.